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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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26703	7590	06/02/2006	EXAMINER	
HARNES, DICKEY & PIERCE P.L.C.			YUN, EUGENE	
5445 CORPORATE DRIVE			ART UNIT	
SUITE 400			PAPER NUMBER	
TROY, MI 48098			2618	

DATE MAILED: 06/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/786,010

Applicant(s)

ROO, PIERTE

Examiner

Eugene Yun

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-95 is/are pending in the application.
- 4a) Of the above claim(s) 1-27 and 76-87 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 28-53, 60, 61, 68, 69 and 88-95 is/are rejected.
- 7) ☒ Claim(s) 54-59, 62-67 and 70-75 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C.

121:

- I. Claims 1-27 and 76-87, drawn to subtracting a replica signal from a composite signal, classified in class 455, subclass 296.
- II. Claims 28-75, 88-95, drawn to transmission signal filtering, classified in class 455, subclass 301.

2. Inventions I and II are related as combination and subcombination.

Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination does not state specific features of the device as the subcombination does. The subcombination has separate utility such as a predetermined voltage source and outputting a signal that reduces a transmission signal.

3. Because these inventions are independent or distinct for the reasons given above and the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Michael Wiggins on 5/23/2006 a provisional election was made without traverse to prosecute the invention of

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group II, claims 28-75 and 88-95. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-27 and 76-87 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 28-51 and 88 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-55 of U.S. Patent No. 6,775,529 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because Claims 33-53 of the Roo

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patent have all of the similar limitations as claims 28-51 and 88 of the claimed invention.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 52, 60, 68, 89-91, 93, and 94 are rejected under 35 U.S.C. 102(b) as being anticipated by Yip et al. (US 5,790,658).

Referring to Claim 52, Yip teaches A communication system including a first transmission channel with a first end and a second end, the first end coupled to a first transformer and the second end coupled to a second transformer, a first end transceiver transmitting and receiving signals via the first transformer and a second end transceiver transmitting and receiving signals via the second transformer, a first signal being supplied at the first end, the first signal comprising a transmission signal component of the first transceiver and a receive signal component from the second transceiver (see col. 5, lines 32-44), said communication system comprising:

a replica transmitter that generates a replica of the transmission signal component of the first transceiver (see col. 5, lines 45-48);

a filter to filter the replica signal (see col. 5, lines 48-50); and

an active resistive summer receiving the first signal, and the filtered replica signal as inputs, to reduce the transmission signal component at an output of the active resistive summer (see col. 5, lines 50-54).

Claims 60 and 68 have similar limitations as claim 52.

Referring to Claim 89, Yip teaches an electrical circuit for reducing a transmission signal comprising:

means for active summing including a positive input terminal, a negative input terminal, and an output terminal (see col. 5, lines 50-54), said active summing means further comprising:

feedback means for communicating with the output terminal and the negative input terminal (see col. 6, lines 34-37);

means for communicating with the negative input terminal and a composite signal, the composite signal having a transit signal component and a receive signal component (see col. 5, lines 32-39); and

means for communicating with the negative input terminal and a replica of the transmit signal (see col. 5, lines 45-48).

Referring to Claim 90, Yip teaches an apparatus for reducing transmission noise in a communications channel, comprising:

An input to receive a near end transmit signal (see col. 5, lines 32-36);

An input to receive a far end receive signal (see col. 5, lines 36-39);

An input to receive a replica of transmission noise in the transmit signal (see col. 5, lines 45-48); and

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A summer connected to all three inputs and providing an output which reduces the transmission noise of the transmit signal (see col. 5, lines 50-54).

Referring to Claim 91, Yip also teaches a replica signal generator to provide the replica to the replica input (see col. 5, lines 45-48).

Claims 93 and 94 have similar limitations as claims 90 and 91.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 53, 61, 69, 92, and 95 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dankberg in view of Bardl (US 5,940,498).

Referring to Claims 53, 61, 69, 92, and 95 Dankberg does not teach the active resistive summer comprising an operational amplifier. Bardl teaches the active resistive summer comprising an operational amplifier (see col. 5, lines 23-32). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Bardl to said device of Dankberg in order to better eliminate interference in an electrical circuit.

Allowable Subject Matter

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11. Claims 54-59, 62-67, and 70-75 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding Claims 54, 62, and 70, Yip and Chan do not teach, alone nor in combination, a feedback element in communication with the output terminal and the negative input terminal of an operational amplifier, a first resistor in communication with said negative input terminal and the composite signal, and a second resistor in communication with said negative input terminal and the replica transmission signal.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eugene Yun whose telephone number is (571) 272-7860. The examiner can normally be reached on 9:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on (571)272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Eugene Yun
Examiner
Art Unit 2618

EY



Matthew D. Anderson
Supervisory Patent Examiner